

Attorney Docket No. LMND.P044DC

REMARKS

Claims 57, 59-61, 63-65, 68-72, 74-80, and 83-88 are pending in the application. Claim 72 has been canceled without prejudice herein. Claims 70, 87, and 88 have been amended herein. No new material is added by the amendments.

Nonstatutory double patenting rejections

Claims 57, 59-61, 63-65, 68-72, 74-80, and 83-88 were rejected for nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5-11, 17, 18, 21, and 23-31 of U.S. Patent No. 6,508,825.

Applicants submit herewith a proper terminal disclaimer to overcome the obviousness-type double patenting rejection. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claims 57, 59-61, 63-65, 68-72, 74-80, and 83-88 were rejected for nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5-14, 17, and 19-21 of U.S. Patent No. 6,638,247.

Applicants submit herewith a proper terminal disclaimer to overcome the obviousness-type double patenting rejection. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claims 57, 59, 63-65, 69-72, 77-80, and 86-88 were rejected for nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8-10, and 13-15 of U.S. Patent No. 6,580,085.

Applicants submit herewith a proper terminal disclaimer to overcome the obviousness-type double patenting rejection. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claims 57, 69, 70, and 86-88 were rejected for nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 6,599,304.

Applicants submit herewith a proper terminal disclaimer to overcome the obviousness-type double patenting rejection. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Attorney Docket No. LMND.P044DC

Rejections under 35 U.S.C. § 102

Claims 57, 59-61, 63-65, 68-72, 74-80, and 83-88 were rejected under 35 U.S.C. § 102(b) as being anticipated by Knoepfler (U.S. Patent No. 5,300,087). Applicants respectfully traverse the rejection. Knoepfler lacks at least a jaw as claimed: “the jaw comprising a free distal tip and an interior surface which continuously mates to a component of the assembly, wherein the interior surface is atraumatic.” (Claim 57). In fact, Knoepfler specifically teaches away from such a jaw by teaching a jaw with teeth. For example, Figures 1-3 and column 4, lines 29-32 teach “The fixed jaw 40 further includes three teeth 50, 51 and 52 which are [sic] cooperable with two teeth 53 and 54 in the rotating jaw 41 for grasping tissue and the like.” For this reason alone, Applicants respectfully submit that Knoepfler does not anticipate the claimed invention.

Applicants further submit that Knoepfler lacks a guidewire lumen as claimed. Knoepfler discloses and illustrates a channel 45 for insertion of a laser fiber, and a channel 47 for insertion of an irrigation and suction catheter. (column 4, lines 16-28). These channels are distinguished from a guidewire lumen, which is typically first introduced into the body so that a device, such as a catheter can be introduced over it, and not the reverse as is the case with the disclosed channels. For all of these reasons Applicants respectfully submit that the claims are not anticipated by Knoepfler.

Knoepfler further fails to teach all of the elements of independent claims 69, 70, 86, 87, and 88. Each of the independent claims includes at least a jaw with an atraumatic interior surface or an atraumatic deflecting member. Because Knoepfler fails to disclose, teach or suggest each and every element of the independent claims, Applicants submit that the independent claims, and their respective dependent claims, are patentable over Knoepfler.

Claims 57, 59-61, 63-65, 68-72, 74-80, and 83-88 were rejected under 35 U.S.C. § 102(b) as being anticipated by O'Connor (U.S. Patent No. 5,603,724).

Applicants respectfully traverse the rejection. O'Connor lacks at least a jaw as claimed: “the jaw comprising a free distal tip and an interior surface which continuously mates to a component of the assembly, wherein the interior surface is atraumatic.” (Claim 57). O'Connor further lacks a guidewire lumen as claimed. As the passage

Attorney Docket No. LMND.P044DC

below discloses, O'Connor teaches away from the present invention by teaching: 1) a device that is meant to be traumatic; and 2) a device with channels for communicating fluid or suction.

FIG. 1 shows a perspective view of a micro-instrument embodying the invention with the cutting jaws in closed position. Tubular extension 10 of 4-10 inches long and 3-5 mm in diameter connects the cutting tip assembly 20, 30 and 40 with the supporting stationary loop handle 70 and the actuating loop handle 80. Actuation force transmitted is transmitted by internal drive tube 50 which comprises a fluid or vacuum channel connecting distal port 25 and the handle suction tube 90 with suction connection 95. As the actuating loop handle 80 is rotated on pivot 75 away from stationary loop handle 70, the drive tube 50 is drawn proximally to rotate, by means of linkage 40 the distal portion of inner tip or jaw 30 on pivot 22 away from the distal portion outer tip or jaw 20 to its open position shown in FIG. 2, which also shows the welding 21 and the distal port 35 of inner tip or jaw 30 which lines up and communicates fluid or suction with distal port 25 of outer tip or jaw 20.

FIG. 3 shows a cross-section of the assembled tip in open position with actuator link 40 positioned at the distal portion of drive tube 50 and engaging inner tip or jaw 30 at pin 42 and bearing surface 34. Inner tip or jaw 30 in turn pivots on pivot 22, which may be a hollow pin. Bearing surface 34 is shown in greater detail in FIGS. 5A and 5B respectively showing a side and a proximal end view of inner tip 30. Pin 42 shown in FIG. 3 fits through aperture 32 in inner tip 30 shown in FIGS. 5A and 5B and through apertures 43 in actuator link 50 shown in FIGS. 6A and 6B to transmit proximally directed pulling force to open the jaws and to share with bearing surfaces 44 (FIGS. 6A and 6B) and 34 (FIGS. 3, 4A and 4B) to transmit distally directed pushing force to close the jaws. The later force-distributing mechanism makes the instrument particularly effective in its cutting action.

(column2, lines 24-57, emphasis added)

Please especially note the underlined sections of the quoted passage. O'Connor specifically recites a device that is designed to cut material and suction it through the channels and ports as shown. Such a device would not be usable to separate an occlusion from a vessel wall because the vessel wall could be damaged. In addition, such a device would not be usable to insert over a guidewire, as the described ports and channels would be used for fluids and suction.

Attorney Docket No. LMND.P044DC

For all of these reasons Applicants respectfully submit that the claims are not anticipated by O'Conner.

Because each of the independent claims recites at least one element that is lacking in O'Conner, as previously discussed, Applicants submit that the independent claims, and their respective dependent claims, are patentable over O'Conner.

CONCLUSION

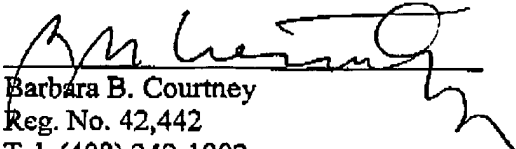
In view of the foregoing amendments and arguments, Applicants respectfully submit that all of the rejections have been overcome, and that claims 57, 59-61, 63-65, 68-71, 74-80, and 83-88 are in condition for allowance. Allowance of the claims is earnestly solicited. If a telephone conference with the Examiner may expedite the allowance of the claims or resolution of any outstanding issues, the Examiner is respectfully encouraged to telephone Barbara Courtney at the number below.

AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

Please charge deposit account 503616 for underpayment of any fees due in connection with this Office Action response.

Respectfully submitted,
Courtney Staniford & Gregory LLP

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